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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/031,239      | 04/02/2002  | Roger W. Whatmore    | 111677              | 6315             |

25944            7590            09/04/2003  
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[REDACTED] EXAMINER

WELLS, KENNETH B

[REDACTED] ART UNIT      [REDACTED] PAPER NUMBER

2816

DATE MAILED: 09/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                              |                  |
|------------------------------|------------------------------|------------------|
| <b>Office Action Summary</b> | Application No.              | Applicant(s)     |
|                              | 10/031,239                   | WHATMORE ET AL.  |
|                              | Examiner<br>Kenneth B. Wells | Art Unit<br>2816 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 02 April 2002.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 02 April 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

|   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                           | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 . | 6) <input type="checkbox"/> Other:  |

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1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. The drawings are objected to because Fig. 9 needs a "prior art" label because it only shows what is conventional in the art. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The disclosure is objected to because of the following informalities: On page 9, line 5, "Figure1" should be changed to --Figure 1--.

Appropriate correction is required.

4. Claim 1 is objected to because of the following informalities: on line 2, --each-- should be inserted before the word "consisting. Appropriate correction is required.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being

anticipated by Katoh.

Note Fig. 6, and column 6, lines 43-51, and further column 6, lines 10-17, where the reference teaches the use of plural pairs of series and parallel ceramic resonators, where the electrodes areas of the series and parallel resonators are different from each other.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. Claims 2-15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Katoh.

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The limitations of these claims do not distinguish patentably over Katoh because they only recite features of resonators which are all old and well-known in the art.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The additional references cited but not applied disclose different length (and thus area) electrodes (Ikada at column 5, lines 35-42); different width electrodes (Taniguchi); that resonant frequency is proportional to the areas of the electrodes (Mikami et al); that changing the thickness of the electrode stacks changes the resonant frequency, and that the electrode area is proportional to the frequency response (Fujita et al); that there is a direct relationship between the areas of the electrodes and the capacitance thereof (Rittenhouse et al at column 6, lines 55+). Also note the paragraph bridging columns 1 and 2 of Taniguchi; column 4, lines 48-62 of Ushiroku; and column 1, lines 15-25 of Ogawa et al.

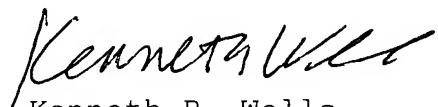
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Wells whose telephone number is 703-308-4809. The examiner can

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normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan, can be reached at 703-308-4876. The fax phone numbers for TC2800 are 703-872-9318 (before final) and 703-872-9319 (after final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.



Kenneth B. Wells  
Primary Examiner  
Art Unit 2816

June 2, 2003